

ABSTRACT OF DISCLOSURE

The present invention relates to a facilitated transport membrane for separation of alkene hydrocarbons from hydrocarbon mixtures, comprising a porous supported membrane and a transition metal salt-polymer membrane consisting of a transition metal and a polymer, in which the transition metal salt does not chemically react with the polymer but physically dispersed within the polymer which has no functional group capable of forming a complex with the transition metal salt. The facilitated transport membrane according to the present invention is prepared by forming a solid transition metal salt-polymer membrane consisting of a transition metal salt and a polymer capable of dispersing the transition metal salt on the molecular scale, and coating the solid membrane on a porous supported membrane with good permeance and superior mechanical strength.